

Health Impacts of Climate Change (3-part series)

Part 3: Dr. Kim Knowlton: Focus on National Climate Assessment

Anne Johnson: This is Global Environmental Health Chat, the podcast that explores environmental health issues that transcend national boundaries. I'm your host Anne Johnson, and this podcast is produced by the National Institute of Environmental Health Sciences.

With an issue like climate change, it's all too easy to think about abstractions, or things that are happening to other people, far away. But the truth is, climate change isn't abstract, or far away. It's happening to us, right here, right now.

For our final episode on the health impacts of climate change, we're staying here at home. The Third National Climate Assessment looks at the changes happening today in the United States, and what we can expect in the future.

Joining us to talk about the health aspects of these changes is Dr. Kim Knowlton. She's Senior Scientist in the Health & Environment Program at the Natural Resources Defense Council and is a faculty member at Columbia University's Mailman School of Public Health. She was also one of authors of the Third National Climate Assessment.

Now, this report is the third in a series produced by the U.S. Global Change Research Program under a Congressional mandate to assess climate change in America. I asked Kim to start by telling us what this new assessment brings to the table.

Kim Knowlton: The NCA 3 is that most comprehensive analysis to date of how climate change is affecting the nation and what the effects in the future could be on health and on other aspects of our life from water use to energy use to transportation. But for sure we're seeing that the body of evidence today that's connecting the dots between climate change and health is really detailed and it's really compelling. I think that the science on climate change and health has really advanced hugely since the last report in 2009.

Johnson: The report offers an exhaustive list of the climate change impacts we're seeing in the U.S. today.

Knowlton: Extreme weather events that we've seen so many of in recent years, you know, more extreme downpours, intense heat waves, sea levels are rising around the world and around our national coastlines and that is making the effects of coastal storms far worse for coastal communities.

Then there's air quality. Air quality gets worse as the temperatures rise. Ground level ozone smog just occurs in higher concentrations, rising temperatures, more drought increases wild fire risks and that has a huge effect on air quality and people's health. Food, water, insect borne diseases are affected by rising temperatures and changing patterns of rainfall. That's allowing some of the insects that can carry disease to spread into more areas of the country.

Johnson: Changes like these can present life-threatening health hazards, particularly for vulnerable people like the elderly, young children, people with respiratory problems, and people who don't have the financial means to use air conditioning or drive themselves out of town during a natural disaster.

But in spite of all this, there is good news. There are things we can do to make our communities more livable in the face of these changes, and there's a lot we can do to reduce carbon emissions and slow the pace of climate change.

More and more U.S. cities and states are investing in clean energy, and adaptation strategies like early warning systems to help people deal with heat waves, droughts, and storms. Some cities are beginning large-scale projects to paint roofs white or plant trees to reflect solar radiation and keep their cities cooler.

Knowlton: Preparing for climate change is really paying off. The earlier that we prepare and adapt the better because our ability to do that as a society is very likely to get more limited as time goes on. And we get a double win for health when we do that. We can improve things like air quality, like our ability to get out and get healthy exercise. At the same time we can produce less of the heat trapping pollution so we limit the worst future effects too. So there's a lot of wins even as there's this rather compelling and sobering information about connecting the dots between climate change and health.

Johnson: We've been hearing about climate change for decades. I asked Kim why she thinks we're seeing more action now.

Knowlton: Well one, I think there's a lot more interest than there ever has been before in preparing and adapting because of the extreme weather events that we've seen, especially in the last few years in the country. People have a clear sense that this is happening to us, our families, and our backyard and they want to be better prepared. We want to get out of harm's way as soon as we can.

Two, adaptation confers not only great benefits to people's health, but also in terms of dollars. It saves dollars and it saves lives.

Johnson: The National Climate Assessment focuses on the United States. But Kim says our responsibilities don't end at our borders.

Knowlton: We in the U.S. are fortunate in that we do have some of the economic ability to take on preparedness. But I think too it's up to us to be a good neighbor and member of the global community and provide some support and resources for adaptation for preparedness elsewhere. We're all connected on this issue.

The future is not like a science fiction or a comic book. It's a place where people are going to have to live. And those people are going to be you, and me, and our kids. So we really have enormous opportunity now to prepare at the same time that we prevent the worst of climate change's effects. And that means talking about and taking the opportunities to reduce carbon pollution.

Johnson: Carbon dioxide isn't poisonous—we breathe it all the time. But when it accumulates in vast quantities in our atmosphere and causes the climate to change, it's a very real health hazard, both here in America and around the world.

We hope our series on climate and health has been useful to you. Thanks to Dr. Kim Knowlton for sharing her reflections on the National Climate Assessment, and to our other guests Dr. John Balbus and Dr. Alistair Woodward. If you missed the first two podcasts in our series, find them on our website at niehs.nih.gov/podcasts. You'll also find links to the two climate assessments and lots of other material there.

Thanks for listening to Global Environmental Health Chat, brought to you by the Global Environmental Health program of the National Institute of Environmental Health Sciences.